

AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/510,497

Attorney Docket No.: Q84102

**AMENDMENTS TO THE DRAWINGS**

Four replacement sheets (Figs. 1-4) are submitted herewith.

In Figs. 1-4, the term “RAW MILK” has been amended to “RAW MILK WITH STARTER”.

In addition, in Fig. 1, the term “--Δ-- OTHERS AT THE CENTER AT 10°C” has been amended to “--Δ-- OTHERS AT THE CENTER AT 5°C”.

No new matter has been added.

Attachments: Four (4) Annotated Sheets (Figs. 1-4)

Four (4) Replacement Sheets (Figs. 1-4)

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**REMARKS**

Upon entry of the present Amendment, claims 6-10 will be all the claims pending in the application. Claims 1-5 have been canceled without prejudice. Claims 6 and 9-10 have been amended.

Claim 6 has been amended into an independent claim and to incorporate the subject matter of canceled claim 1. Claim 6 has been amended to recite a process for producing a natural cheese, and the process comprises adding an yeast extract to a milk component before formation of a curd, and fermenting the curd to produce the natural cheese, wherein the natural cheese comprises a lactic acid bacterium belonging to *Lactobacillus gasseri* having a disinfection potency against *Helicobacter pylori*, wherein the lactic acid bacterium is present at a viable count of  $10^7$  cfu/g or more when preserved at a temperature of 10°C or less for 6 months. Support for the amendment to claim 6 can also be found in the specification, for example, at page 9, last paragraph bridging page 10.

Claims 9-10 have been amended to remove multi-dependency and to depend directly from claim 6.

Four replacement sheets (Figs. 1-4) are submitted herewith to correct the typographical errors in Figs. 1-4. In particular, the term “RAW MILK” has been amended to “RAW MILK WITH STARTER”.

In addition, in Fig. 1, the term “--Δ-- OTHERS AT THE CENTER AT 10°C” has been amended to “--Δ-- OTHERS AT THE CENTER AT 5°C”. Support for the amendment to Fig. 1 can also be found in the specification, for example, at page 17, second paragraph.

No new matter has been added. Entry of the Amendment is respectfully requested.

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**I. RESPONSE TO CLAIM OBJECTIONS**

Claims 5-6 and 8-10 are objected to as being improper multiple dependent claims.

Claim 5 has been canceled. Claim 6 has been amended into an independent claim and to incorporate the subject matter of canceled claim 1. Claim 8 depends directly from independent claim 6. Claims 9-10 have been amended to remove multi-dependency and to depend directly from independent claim 6.

Withdrawal of the forgoing objection is respectfully requested.

**II. RESPONSE TO CLAIM REJECTION UNDER 35 U.S.C. § 103 (a)**

Claims 1-3 and 5-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kimura et al. (EP 1 112 692 A1; “Kimura”) in view of Mäyrä-Mäkinen et al. (US 5908646; “Mäyrä-Mäkinen”).

Applicants respectfully traverse.

Claims 1-5 have been canceled. The rejection with regard to claims 1-5 is thus rendered moot.

Independent claim 6 presently recites a process for producing a natural cheese, and the process comprises adding an yeast extract to a milk component before formation of a curd, and fermenting the curd to produce the natural cheese, wherein the natural cheese comprises a lactic acid bacterium belonging to *Lactobacillus gasseri* having a disinfection potency against *Helicobacter pylori*, wherein the lactic acid bacterium is present at a viable count of  $10^7$  cfu/g or more when preserved at a temperature of 10°C or less for 6 months.

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Kimura is mainly relied upon for disclosing the use of *Lactobacillus gasseri*, with a disinfection property against *Helicobacter pylori*, in foods. [001] Kimura at least fails to disclose or suggest the claimed step of adding an yeast extract to a milk component before formation of a curd.

Mäyrä-Mäkinen is relied upon for disclosing the incorporation of *lactobacilli*, for their antagonistic properties into cheese. Mäyrä-Mäkinen does not disclose or suggest the claimed step of adding an yeast extract to a milk component before formation of a curd. Mäyrä-Mäkinen does not make up the noted deficiency of Kimura.

The instant specification discloses, for example, as described in Figure 3, that *L. gasseri* OLL2716 proliferates until one month of preservation time and keeps high bacterial count after one month when cheese is produced by adding the yeast extract to a milk component before formation of a curd. Applicants respectfully submit that *L. gasseri* OLL2716 does not proliferate during preservation of cheese and decreases when cheese is produced without adding yeast extract.

Accordingly, claim 6, and all dependent claims that directly or indirectly depends from claim 6, are patentable over Kimura in view of Mäyrä-Mäkinen. Applicants respectfully request reconsideration and withdrawal of the present §103 rejection.

### **III. ADDITIONAL CONSIDERATION**

Mäyrä-Mäkinen is directed to the use of *Lactobacillus rhamnosus* in the food industry to inhibit the growth and activity of clostridia. Col. 1, lines 9-11. Mäyrä-Mäkinen discloses that *Lactobacillus rhamnosus* LC705, DSM7061 is particularly advantageous in its anticlostridial

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effect. Col. 3, lines 25-27. Mäyrä-Mäkinen discloses the use of *Lactobacillus rhamnosus* in prevention of butyric acid fermentation and in cheese production. See Abstract.

Applicants respectfully submit that *Lactobacillus rhamnosus* and *Lactobacillus gasseri* are two different bacterial strains possessing different properties and different functions, and therefore, are there has not apparent reason that one of ordinary skilled in the art would be motivated to use those two different bacterial strains interchangeable.

In this regard, Applicants wish to point out that Kimura discloses, as shown in Table 1 of Kimura, that the resistance against artificial gastric acid of *L. rhamnosus GG* is clearly lower than that of *L. gasseri* OLL2716. This fact indicates that *L. rhamnosus GG* is not suitable as strain used for disinfection of *H. pylori* which lives in stomach which has low pH environment and that *L. rhamnosus GG* has low disinfection potency against *H. pylori* which lives in stomach.

Furthermore, the instant specification discloses, for example, as shown in Figure 3, bacterial count of *L. gasseri* OLL2716 and other *Lactococcus* bacteria in each preserved time. When the preserved time becomes longer, bacterial count of other *Lactococcus* bacteria decreases in geometric progression. On the other hand, *L. gasseri* OLL2716 maintain proliferation until after one month of preservation and keep high bacterial count after one month of preservation. This result indicates that there is possibility that *L. gasseri* OLL2716 decreases in geometric progression similarly with other *Lactococcus* bacteria since *L. gasseri* OLL2716 is one kind of lactic acid bacterium similarly with *Lactobacillus*. Thus, production of cheese containing *L. gasseri* is difficult in view of food processing.

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**IV. CONCLUSION**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

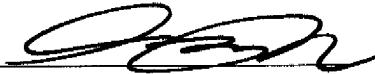
The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Sunhee Lee/

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

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Sunhee Lee  
Registration No. 53,892

  
Yan Lan  
Registration No. 50,214

WASHINGTON DC SUGHRUE/265550

**65565**

CUSTOMER NUMBER

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